UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,172	11/29/2001	David Lee Sandbach	9637-000037	9532

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EXAMINER
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ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 06/03/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11 March 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-6, and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Nagao (U. S. Patent No. 6,532,003).

In reference to claims 1 and 19, Yaniger discloses the processor 1 for processing data (in

Fig. 3) that generated by the depression of two keys (for generating first and second characters)

on the template overlay simultaneously, where the leading edge and trailing edge of the

individual keys are too close to differentiate between them (col.7, line 11 – col. 8 line 2).

Nagao discloses in Fig. 2 process to detect touch (generating first data type) and non-

touch (generating second data type) which corresponding to the positional data corresponding to

the position of a mechanism interaction with the input sensor and a second data type

corresponding to the absence of a mechanism interaction [col. 2, lines 6-44].

It would have been obvious for one of ordinary skill in the art at the time of the invention

was made to provide the teaching of the background art, i.e.: detecting the touch and non-touch

in the coordinate input device, in the device of Yaniger for differentiating the touch and non-

touch data type for generating characters when two keys of the keyboard are overlapped

depressed.

In reference to claim 2, Nagao discloses in Fig. 10 the input sensor 66 comprises a first

and second conducting layers 60 and 61, each of the conducting layer having electrodes 62 and

63 (corresponding to the conductive tracks), driving circuits including transistors 55 and 56 for

applying voltage between the pair of electrodes 62 on the conductive layer 60 and transistors 57

and 58 for applying voltages between the pair of electrodes 63 on the conductive layer 61.

Voltages are applied to the conductor layers 60 and 61 by alternately switching on pairs of

transistors 55, 56 and transistors 57, 58 (col. 5, line 58-col. 6, line 2).

In reference to claim 3, Nagao discloses that the coordinate control part 51 retrieves

coordinate data or commands from the storage part 52, which correspond to the voltage value

corresponding to the X-coordinate and the Y-coordinate of the touch point obtained at the

voltage detecting part 53. Then, the coordinate control part 51 outputs the thus obtained

coordinate data or commands to the I/O controller 3. Also, the coordinate control part 51

controls the transistors 55, 56, 57 and 58 so as to alternately apply driving voltages to the

conductive layers 60 and 61 (col. 6, lines 6-15).

In reference to claims 4-6, Nagao discloses that the coordinate control part 51 retrieves

and creates coordinate data from the storage part 52 according to the voltage values

corresponding to the X-coordinate and the Y-coordinate obtained at the voltage detecting part 53

(S22). Then, the coordinate control part 51 repeatedly checks the voltage values corresponding to

the X-coordinate and the Y-coordinate sent from the voltage detecting part 53 so as to determine

whether the detected touch is continuous (S23). If the detected touch is not continuous (S23,

NO), the coordinate control part 51 clears the coordinate data created in S22 (S24), and waits for

a subsequent touch. If the detected touch is continuous (S23, YES), the coordinate control part

51 creates switch data formed by a command corresponding to a command generated by a button of a mouse and coordinate data indicating a touch point, which may be indicated as a cursor, operating on the coordinate input panel 66 (S25). Finally, the coordinate control part 51 outputs the switch data to the above-described I/O controller 3 (S26) [col. 6, lines 36-55].

Claims 13-18 are method claims corresponding to the apparatus of claims 1-6 and therefore, rejected based on the same basis set forth in said claims.

3.   Claims 7-12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaniger and Nagao in view of Fullerton (U. S. Patent No. 6,426,868).

In reference to claims 7, Nagao discloses that the coordinate detecting device may be built-in to a data processing apparatus such as a portable personal computer. Since such a coordinate detecting device is used very frequently, the coordinate detecting device may be provided at the bottom of the keyboard. Therefore, the coordinate input panel may be falsely touched when operating the keyboard positioned above the coordinate input panel. This false touch may cause problems such as an offset of a key entry position and processing of invalid coordinate data. Fullerton discloses a handheld computer keyboard system as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the processing apparatus of Yaniger and Nagao in the system of Fullerton for providing a data processing apparatus which can detect a false touch on the coordinate data created by a false touch on the coordinating detecting device during key entry operation, invalid unnecessary coordinate data and process key entry data other than the false coordinate data as valid coordinate data (col. 3, lines 19-24).

In reference to claims 8 and 20 Nagao discloses in Fig. 3, the two layers of the device

wherein the hardware layer corresponding to the first processing for receiving signals from the

input sensor and the software layer corresponding to the second processing means to process data

to generate data corresponding to displayable characters.

In reference to claim 9, Nagao discloses that the coordinate detecting device may be

built-in a portable personal computer (col. 1, lines 32-35).

In reference to claim 10, Nagao discloses the keyboard 3 in Fig. 3.

In reference to claim 11, Nagao discloses that consider a case where data is input to the

control part 8 as shown in FIG. 6A. The data is stored in the receiving buffer 12 (S1) and then it

is determined whether the data is key entry data (e.g., character data) from the keyboard 2 (S2).

If so (S2, YES), the time monitoring part 13 measures the keystroke time interval of the

keyboard 2 according to the key entry data received at the receiving buffer 12 (S3). Note that the

keystroke time interval is a time difference Tb between the previous reception time and the latest

reception time of the key entry data (hereinafter referred to as a stroke interval). Also, the

maximum stroke interval Tmax up to that point is stored. When the stroke interval Tb does not

exceed the maximum keystroke value Tmax, it is determined that the keyboard 2 is under key

entry operation. The maximum keystroke value Tmax has a predetermined limit value so that

the keystroke time intervals exceeding the limit value will not be stored as the maximum

keystroke value Tmax. Therefore, the maximum keystroke value Tmax varies within a range

below the limit value. After monitoring the keystroke time interval Tb, the data creating part 15

creates key entry data to be sent as transmission data (S4) and then sends the transmission data to

the upper layer operating system 6 and the application 7 (S5). When there is a successive key

entry operation as shown in FIG. 5 (S6, YES), the control part 8 repeats steps 1 to 6 (col. 7, lines 4-31).

In reference to claim 12, refer to the rejection as applied to claim 2.

Response to Arguments

4.   Applicant's arguments, see pages 11-13 of the Amendment, filed 3/11/04, with respect to 112 Rejections and Drawing Objection have been fully considered and are persuasive. The 112 Rejections and the Drawing Objection of the Office Action paper number 9 has been withdrawn.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Applicant argues that " This is contrast to the present invention, which functions to generate characters form input data corresponding either to positions of mechanical interactions with an input sensor or the absence of a mechanical interactions with and … When mechanical interaction at different positions overlap in time the present invention is configured to generate a first character corresponding to the first mechanical interaction and to generate a second character corresponding to the second mechanical interaction [page 14, third paragraph) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In addition, Yaniger discloses a method and an apparatus to generate 2 different

characters when two keys of the keyboard are simultaneously depressed satisfying the claimed

limitations.

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **DUC Q DINH** whose telephone number is **(703) 306-5412** The

examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

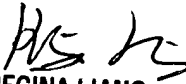**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,

Arlington, VA Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology Center 2600 Customer Service Office whose telephone

number is (703) 306-0377.

DUC Q DINH
Examiner
Art Unit 2674

DQD

November 15, 2002

REGINA LIANG
PRIMARY EXAMINER